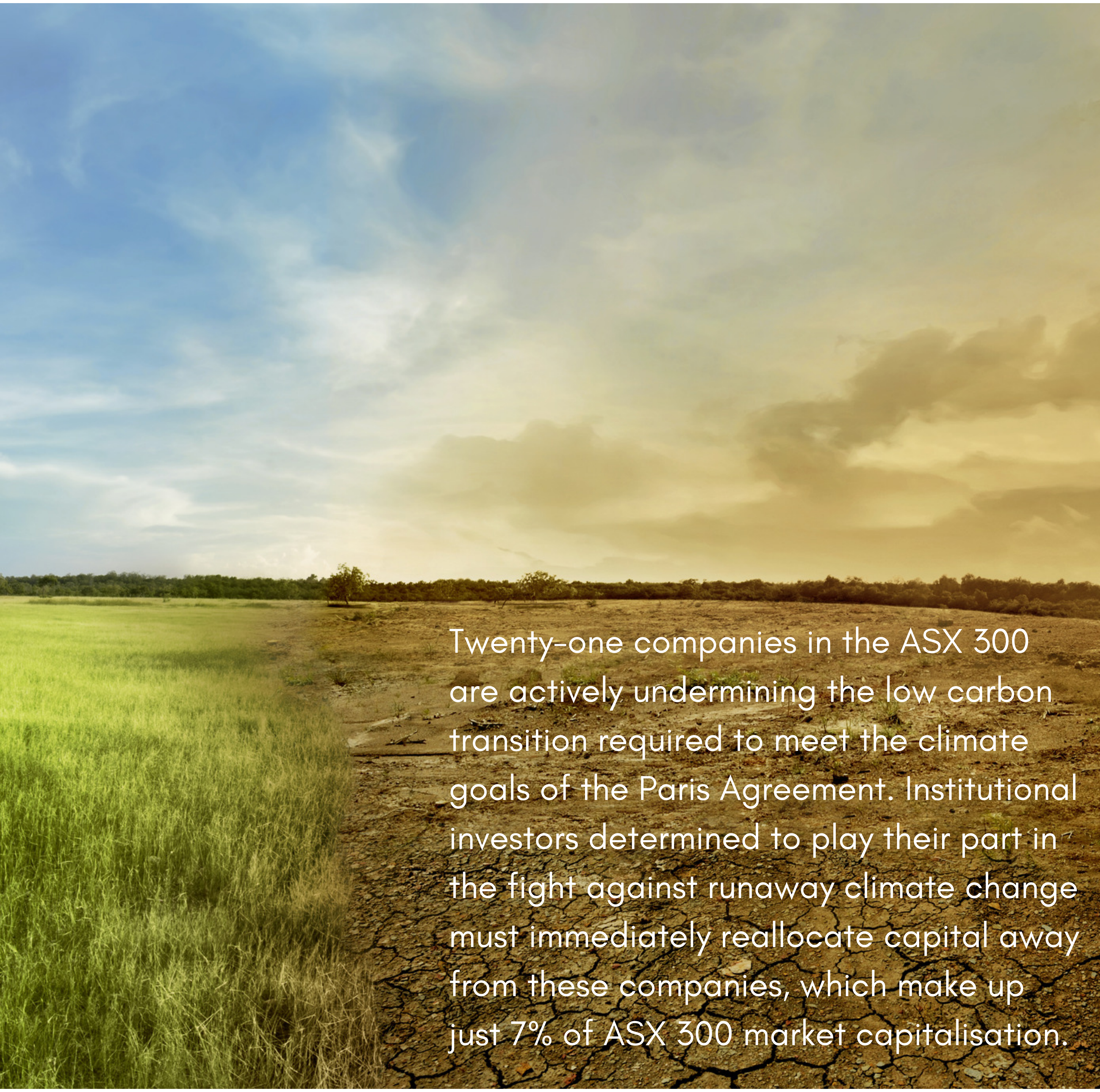
MARCH 2019

Out of line, out of time



Twenty-one companies in the ASX 300 are actively undermining the low carbon transition required to meet the climate goals of the Paris Agreement. Institutional investors determined to play their part in the fight against runaway climate change must immediately reallocate capital away from these companies, which make up just 7% of ASX 300 market capitalisation.

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Introduction

At 1.0°C of human-induced global warming we are already seeing the devastating impacts of climate change in Australia and around the world. 2018 was Australia's third hottest year ever. The 10 hottest years on record have all occurred since 1998, and the last 6 years all fall in that top 10. The intense heatwaves, droughts, floods, bushfires, and storms we are experiencing are all being exacerbated by global warming.

Last year, the Intergovernmental Panel on Climate Change (IPCC) released its sobering 1.5°C Special Report, which set out the devastating impacts of 2°C average global warming compared to 1.5°C. The difference between these two is hundreds of millions of people living in climate-poverty. It's 10 million more people being able to live in their low-lying countries, and giving a fraction of the world's coral reefs a fighting chance of survival.

Limiting global warming to 1.5°C requires pulling out all the stops, including reducing coal power to virtually zero and reaching at least 85% of power coming from renewables worldwide by 2050. It means no more expansion of the fossil fuel industry and wealthy countries like Australia phasing out coal power by 2030.

However, a handful of Australian companies are undermining efforts to limit global warming by pursuing new fossil fuel projects, or basing their business plans on energy projection scenarios that would doom the Paris Agreement to failure. These companies have now been given more than three years to align their businesses with the Paris goals, but have dismissed the notion.

This study identifies those companies, setting out the relevant facts for institutional investors to act to align their portfolios with the goals of the Paris Agreement.

Summary

Market Forces reviewed the public disclosures of all ASX 300[1] companies to determine the extent to which those companies' business strategies align with the climate goals set out in the Paris Agreement.

This research should inform investor approaches to aligning their own portfolios with the goal of holding global warming to 1.5°C, through a combination of investment reallocation and varying degrees of corporate engagement.

1 As at 1 January 2019, listed by https://www.asx300list.com/

Findings

Out of line, out of time

Twenty-one companies in the ASX 300 are actively undermining the Paris climate goals. These companies account for 7% of the total market capitalisation of the ASX 300. Investors determined to play their part in the fight against runaway climate change must immediately reallocate capital away from these companies.

Out of line, potential shown

A further three companies (AGL, BHP and Origin) are acting similarly, but have shown some progress towards aligning their businesses with the Paris climate goals. These companies require intense engagement to ensure this ambition is matched with the targets and action required to meet it. In the event that the company fails to align its business strategy with the Paris climate goals at the next available opportunity, it should face divestment.

Must demonstrate Paris-alignment

120 companies (64% of ASX 300 market cap) facing heightened transitional climate risk[2] have not demonstrated business strategies consistent with the climate goals of the Paris Agreement being met. 16 of these companies (3% of ASX 300 market cap) are heavily exposed to the fossil fuel sector,[3] and require intense engagement to ensure their rapid transition to a Paris-aligned business model. In the event that the company fails to align its business strategy with the Paris climate goals, it should face divestment.

Demonstrated alignment

Just eight companies have demonstrated strategic alignment with the goals of the Paris Agreement.

Low exposure to Paris transition

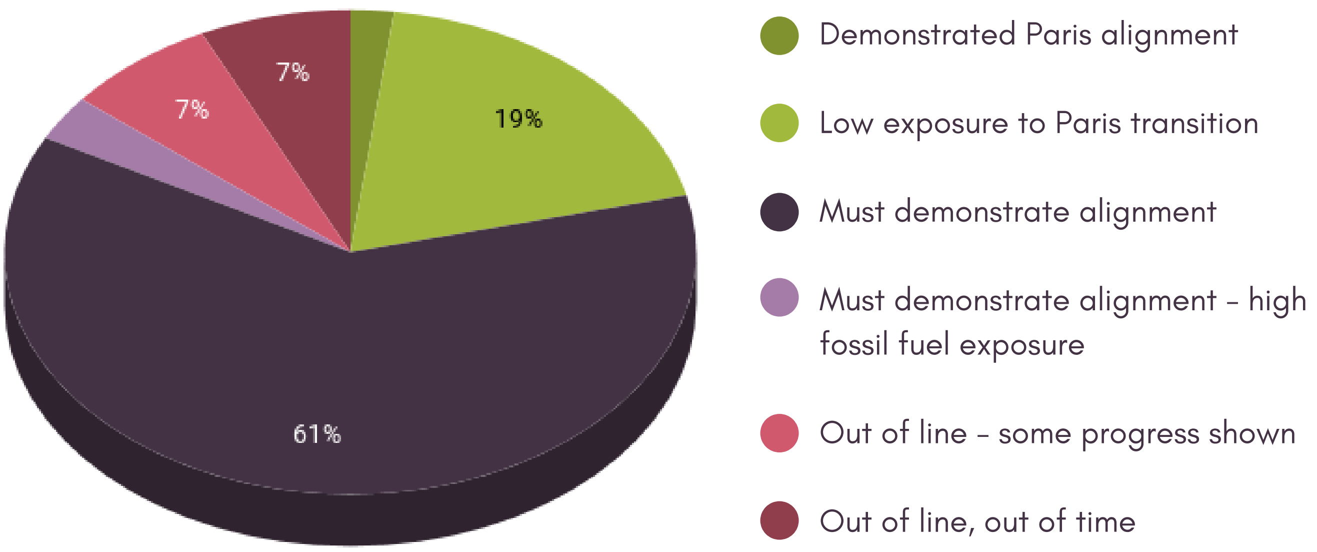
The remaining 143 companies have operations and greenhouse gas emissions profiles that are not overtly inconsistent with the goals of the Paris Agreement being met.

Classification	Number of companies[4]	Total market cap (AUD)	ASX 300 weight[5]
Demonstrated Paris alignment	8	$36 billion	2%
Low exposure to Paris transition	143	$322 billion	19%
Needs to demonstrate Paris alignment	104	$1,045 billion	61%
Needs to demonstrate Paris alignment - fossil fuel exposure	16	$54 billion	3%
Out of line, some progress shown	3	$126 billion	7%
Out of line, out of time	21	$121 billion	7%

Full table of findings included as Appendix 1

2 These companies either operate in sectors defined by the Financial Stability Board's Task Force on Climate-related Financial Disclosures as particularly exposed to transitional climate risk, or have large emissions profiles. Please see the methodology for full details.
3 See Methodology on pages 9-10
4 According to asx300list.com methodology: "Rebalances are conducted biannually in March and September. If a significant event occurs (e.g. delisting, merger, etc.) an intra-quarter removal may be conducted. Unlike other indices, a replacement is not added to the index until the next rebalance date."
As a result, at the time the analysis was conducted, 295 companies were assessed.
5 Percentages may not add to 100 due to rounding

Paris-alignment of ASX 300 companies by weight



Out of line, out of time companies

Company	Expanding fossil fuel industry	Relying on non-Paris-aligned scenario
APA Group	Yes	-
Beach Energy Limited	Yes	-
Caltex Australia	Yes	-
Cooper Energy Limited	Yes	-
FAR Limited	Yes	-
Karoon Energy Limited	Yes	Yes
Liquefied Natural	Yes	Yes
Mineral Resources	Yes	-
New Century Resources	Yes	-
New Hope Corporation	Yes	Yes
Oil Search Limited	Yes	Yes
Santos Limited	Yes	Yes
SENEX Energy Limited	Yes	-
Seven Group Holdings	Yes	Yes
Soul Pattinson (W.H)	Yes	Yes
SOUTH32 Limited	Yes	Yes
Sundance Energy	Yes	-
Viva Energy Group	Yes	-
Whitehaven Coal	Yes	Yes
Woodside Petroleum	Yes	-
Worleyparsons Limited	-	Yes

Case study #1 - Coal cowboys

It is evident through their ongoing expansion plans and commitment to scenarios that doom the Paris Agreement to failure, Whitehaven Coal and New Hope Corp have no place in a 1.5°C-aligned investment portfolio.

Whitehaven Coal is a pure-play coal miner. And while New Hope brands itself as “diversified,” the company’s minor dalliances into oil and agriculture pale in comparison to its coal business. These companies stand out amongst the ASX 300 as particularly exposed to the transitional risks facing the coal export market in a 1.5ºC aligned scenario.

According to the IPCC, 1.5°C pathways with limited or no overshoot see coal’s share of the global energy mix fall by around 70% by 2030, and be practically non-existent by 2050. While the likes of Whitehaven and New Hope can debate how it will be sliced up, there’s no debating that the coal market pie is going to be much smaller in coming years, contrary to their disclosed forecasts.

Glencore, one of the biggest coal producers in the world, seems to have recognised this, committing to cap its coal output to current levels. Yet both Whitehaven and New Hope are planning to expand their operations, pursuing new coal mining projects in NSW and Queensland respectively.

Whitehaven has repeatedly touted the International Energy Agency’s New Policies Scenario as justification for its coal expansion plans and positive views of the company’s future prospects. This scenario is predicated on the failure of the Paris Agreement, and could see around 4°C of global warming. There could hardly be a clearer example of a company that has no place in a Paris-aligned investment portfolio.

Similarly, New Hope Corporation plans to more than double the annual production capacity of its New Acland coal mine, and extend the mine’s life out to 2042. The company also forecasts growing coal demand in Asia without acknowledging that these projections are inconsistent with the climate goals of the Paris Agreement.

Case study #2 - Big oil and gas

Worth a combined $50 billion, Santos, Woodside and Oil Search are amongst the largest ASX-listed companies actively undermining the goals of the Paris Agreement. All three have faced increased investor engagement over climate change in recent years, but this has done nothing to dissuade their plans to increase fossil fuel production. These companies continue to actively undermine global efforts to hold warming to 1.5°C. The time for engagement has well and truly passed.

According to the IPCC's 1.5°C scenario analysis, natural gas use is expected to decrease by 13% - 62% from 2020 to 2050.

Santos is planning to increase annual production by more than 25% by 2025, far outstripping the 6% gas demand growth by 2030 envisaged under the IEA's Beyond 2°C Scenario, let alone a 1.5°C scenario. For its part, Woodside plans to ramp up annual production by more than 20% to 100 MMboe by 2020. The company projects demand growth without reference to a scenario that is consistent with the climate goals of the Paris Agreement.

In a further demonstration of their unwillingness to act on climate change, Woodside and Santos have both refused to put climate-related shareholder resolutions to their 2019 annual general meetings. The companies relied on a technicality to deny shareholders the opportunity to vote on whether or not the companies should disclose targets and strategies consistent with the Paris Agreement's aims.

Oil Search has at least recognised its Nanushuk oil project would become unviable under a 1.5°C scenario, while the value of other projects would be eroded. Yet the company continues to pour shareholder capital into fossil fuel expansion and exploration projects, including Nanushuk and a plan to double the downstream capacity of its massive PNG LNG project. Oil Search may be looking for taxpayer funding for PNG LNG, having made a submission to a Senate inquiry supporting legislative changes that would enable more Australian public finance for overseas projects, particularly in the Pacific region.

Case Study #3 - Last chance saloon

Making up a combined 7% of the ASX 300, BHP, AGL, and Origin present major opportunities to drive the clean energy transition required to meet the Paris climate goals. While making the right noises with respect to climate action, each of these companies is delaying the obvious action required. Intense and immediate shareholder engagement is required to ensure these companies disclose, at the next available opportunity, targets and strategies that are truly aligned with the Paris climate goals.

AGL claims its Greenhouse Gas Policy "is intended to give AGL a path to reducing its emissions by 2050 in line with the accepted science on the speed of decarbonisation required to avoid 2 degrees of warming." Given the findings of the IPCC 1.5°C report, investors are calling for the phase out of coal power in OECD countries by 2030. AGL must step up the ambition and detail of its strategic planning to match. The company continues to expand fossil fuel operations, with investments in new gas power plants and plans to construct an LNG import facility at Crib Point in Victoria.

Origin Energy has committed to reduce scope 1 and 2 emissions by 50% from 2017 to 2032, and scope 3 by 25% over the same period. However, the Eraring coal-fired power station currently makes up more than half of Origin's scope 1 and 2 emissions profile. Given this project reaches the end of its economic life in 2032, the company can meet its unambitious target by simply closing Eraring on schedule, effectively allowing the company to increase direct emissions from all other projects. Origin's emissions actually rose last year, and it continues to spend shareholder capital on new gas projects. These plans include Origin's highly controversial Northern Territory fracking project.

Similarly, BHP's actions are inconsistent with its "goal of achieving net-zero operational GHG emissions in the latter half of this century, consistent with the Paris Agreement." The company continues to pursue new fossil fuel ventures, and bases its business strategy on the company's own "Central Case" climate scenario. This scenario is expected to see global warming of around 3°C, a catastrophic outcome given the IPCC's recent findings.

Other out of line companies

- **APA Group** projects growth in its gas transportation business in the order of $2 billion over the next 5-10 years, including plans for new infrastructure to facilitate the expansion of Australia's gas industry.
- **Beach Energy** has increasing oil and gas production targets out to 2023 and continues to allocate capex to expanding its reserves.
- **Caltex** continues to invest in expansionary fossil fuel infrastructure and repeatedly talks up the growth prospects of its Fuels and Infrastructure business without reference to a Paris-aligned scenario.
- **Cooper Energy** has a business model that is entirely reliant on finding and producing more oil and gas in South-East Australia.
- **FAR** is a pure play oil and gas explorer operating in West Africa, expecting to begin oil production in 2022 and gas in 2024.
- **Karoon Energy** is a pure play oil and gas explorer seeking to find and develop new fossil fuel reserves. In forecasting oil demand growth, the company refers to the IEA New Policies Scenario, which the TCFD projects will generate warming of 4°C.
- **Liquefied Natural Gas** is developing new LNG export terminal projects in North America. The company has projected global LNG demand using Shell's interpretation of various outlooks by IHS Markit, Wood Mackenzie, FGE and Poten & Partners data which are generally based on current trajectory or business as usual scenarios.
- **Mineral Resources** acquired Empire Oil & Gas in 2017, and is actively pursuing gas development opportunities in Empire's exploration tenements.
- **New Century Resources** holds a 70% stake in US-based Kodiak Mining Company, which is attempting to develop the Kodiak Coking Coal Project into an operating mine.
- **Senex Energy** is a pure play oil and gas company which is conducting a "transformational growth agenda," which involves tripling capex on exploration and development from FY18 - FY21.
- **Seven Group** owns 25% of Beach Energy (see above), and is further expanding fossil fuel sector through its other Seven Energy assets.
- **Soul Pattinson (WH)** owns a 50% stake in New Hope (see 'Coal cowboys' section above). When challenged over the company's management of climate risk, Chairman Robert Millner told the 2018 AGM "If the shareholders aren't happy they can sell their shares."
- **South32** has started to shift away from thermal coal production, separating its South Africa Energy Coal business and attempting to reduce its ownership in the spun-off company. But during this process, the company approved a 20 year extension to its Klipspruit coal mine. South32 also continues to increase its metallurgical coal production in Australia. While the company has disclosed climate change scenario analysis, its 'base case' would see 4°C of warming, and its most ambitious climate scenario only gives a 50% chance of limiting warming to 2°C.

Other out of line companies (continued)

- **Sundance Energy** is a pure play oil and gas company with plans to increase exploration and production.
- **Viva Energy** operates an oil refinery business, which it intends to expand in coming years. The company's 2018 prospectus refers to Wood Mackenzie demand projections. Neither of WoodMac's Base Case or Carbon Constrained scenarios is consistent with the Paris climate goals.
- **WorleyParsons'** stated strategic priorities include growth of its fossil fuel business and pursuing potential LNG opportunities. The company also refers to BP's Evolving Transition scenario when projecting oil demand out to 2040, which BP notes is not consistent with the Paris Agreement. According to CarbonTracker, the scenario "shows the yawning gap between company expectations and the 2˚C climate target."

Methodology

Scope
Research comprises all companies presented on the asx300list.com as at 1 Jan 2019 (295 in total). See asx300list.com for its own list methodology.

Sources
Market Forces reviewed the following sources that were available at 1 January 2019:
- Annual reports
- Sustainability reports
- Company websites
- NGERS reporting data
- Investor presentations

Process
Companies were grouped according their sector as listed on asx300.com. The following processes were applied to reflect each group's exposures to transitional climate change risks and opportunities.

Sector group 1
Comprised of the following sectors, which are not identified by the TCFD as "sectors potentially most affected by climate change": Consumer Discretionary, Consumer Staples, Health Care, Information Technology, Real Estate, Telecommunications

Process:
Is the company required to report under the NGERS or does it have combined scope 1 and 2 greenhouse gas emissions equal to or greater than 50 kilotonnes CO2-e?
→ NO - Company is deemed 'Low exposure to Paris transition
→ YES - Does the company have a SBTI-accredited emissions reduction target and clear plans to achieve that target?
→ NO - Company 'Must demonstrate Paris-alignment'
→ YES - Company has 'Demonstrated Paris-alignment'

Sector group 2
Comprised of Financials sector companies, which is identified by the TCFD as one of the "sectors potentially most affected by climate change".

Process:
Has the company demonstrated how investment decisions (investment portfolio, loan book, or underwriting portfolio) will align the business' operations with a Paris-aligned scenario?
→ NO - Company 'Must demonstrate Paris-alignment'
→ YES - Company has 'Demonstrated Paris-alignment'

Methodology (continued)

Sector group 3
Comprised of the following sectors, which are identified by the TCFD as “sectors potentially most affected by climate change”: Industrials, Materials, Utilities

Process:
Does the company own fossil fuel production, processing or energy generation assets (coal mines, oil or gas fields, oil or gas pipelines, coal / LNG ports, coal or baseload gas power stations, or oil refineries)?
→ YES – Apply ‘Group 4’ (Energy) process
→ NO – Does the company provide services to facilitate fossil fuel exploration, production, transportation, or electricity distribution?
→ NO – Apply ‘Group 1’ methodology
→ YES – Has the company demonstrated how its strategy (involving capex decisions, remuneration and emission reduction targets) is aligned to a Paris-aligned scenario?
→ YES – Company has ‘Demonstrated Paris-alignment’
→ NO – Company ‘Must demonstrate Paris-alignment – high fossil fuel exposure’

Sector group 4
Comprised of Energy sector companies, which is identified by the TCFD as one of the “sectors potentially most affected by climate change”.

Process:
Does the company rely on scenarios that overtly fail to meet the goals of the Paris Agreement when discussing future plans or prospects?
→ YES – Company is deemed ‘Out of line’
→ NO – Is the company attempting to expand the fossil fuel industry?
→ YES – Company is deemed ‘Out of line’
→ NO – has the company demonstrated how its strategy (involving capex decisions, remuneration and emission reduction targets) is aligned to a Paris-aligned scenario?
→ YES – Company has ‘Demonstrated Paris-alignment’
→ NO – Company is deemed ‘Out of line’

For all ‘out of line’ companies: Has the company made substantial progress towards strategy alignment?
→ YES – Company is ‘Out of line – some progress shown’
→ NO – Company is deemed ‘Out of line – out of time’

ASX 300 companies alignment with Paris climate goals		
Classification	**No.**	**Market Cap (AUD)**
Demonstrated Paris alignment	**8**	**$36,302,705,000**
Low exposure to Paris transition	**143**	**$321,500,228,000**
Needs to demonstrate Paris alignment	**104**	**$1,045,349,912,700**
Needs to demonstrate Paris alignment - fossil fuel exposure	**16**	**$53,774,270,000**
Aurizon Holdings Limited		$8,517,750,000
Ausdrill Limited		$812,831,000
Ausnet Services Limited		$5,679,890,000
Cimic Group Limited		$14,075,900,000
Downer Edi Limited		$4,020,190,000
Emeco Holdings		$656,121,000
Erm Power Limited		$397,620,000
IMDEX Limited		$402,618,000
Incitec Pivot		$5,284,690,000
Maca Limited		$250,587,000
Monadelphous Group		$1,297,720,000
NRW Holdings Limited		$607,065,000
Orica Limited		$6,553,980,000
QUBE Holdings Limited		$4,078,090,000
Service Stream		$635,726,000
Wagners HLD Company		$503,492,000
Out of line, some progress shown	**3**	**$125,729,600,000**
AGL Energy Limited		$13,510,000,000
BHP Group Limited		$100,836,000,000
Origin Energy		$11,383,600,000
Out of line, out of time	**21**	**$120,767,504,000**
APA Group Units FP Stapled Securities		$10,029,100,000
Beach Energy Limited		$3,064,240,000
Caltex Australia		$6,645,450,000
Cooper Energy Limited		$721,590,000
FAR Limited		$365,923,000
Karoon Energy Limited		$207,634,000
Liquefied Natural		$294,452,000
Mineral Resources		$2,907,870,000
New Century Resources		$418,297,000
New Hope Corporation		$2,834,620,000
Oil Search Limited		$10,909,200,000
Santos Limited		$11,414,400,000
SENEX Energy Limited		$399,575,000
Seven Group Holdings		$4,812,090,000
Soul Pattinson (W.H)		$5,958,550,000
SOUTH32 Limited		$17,022,100,000
Sundance Energy		$247,473,000
Viva Energy Group		$3,500,160,000
Whitehaven Coal		$4,432,520,000
Woodside Petroleum		$29,320,300,000
Worleyparsons Limited		$5,261,960,000